BASIC COMPONENTS IN SAM

- CLIENT: A PROCESS THAT HAS DATA PACKETS TO SEND.
- SEQUENCER: SERIALIZE DATA PACKETS SENT TO THE GROUP.
- COMMIT SERVER: STORE THE ORDERING INFORMATION FOR EACH DATA PACKET.
- DATA SERVER: STORE DATA PACKETS.
- CHECKPOINT SERVER:
  -DO MESSAGE CONSOLIDATION.

  NOTE: LOGICAL CONCEPT ONLY.

  ASSUMPTIONS: UNIQUE PROCESS ID
  UNIQUE DATA PACKET ID (E.G. PROCESS ID + SEQ)

FIG. 1A

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SENDING A DATA PACKET IN SAM

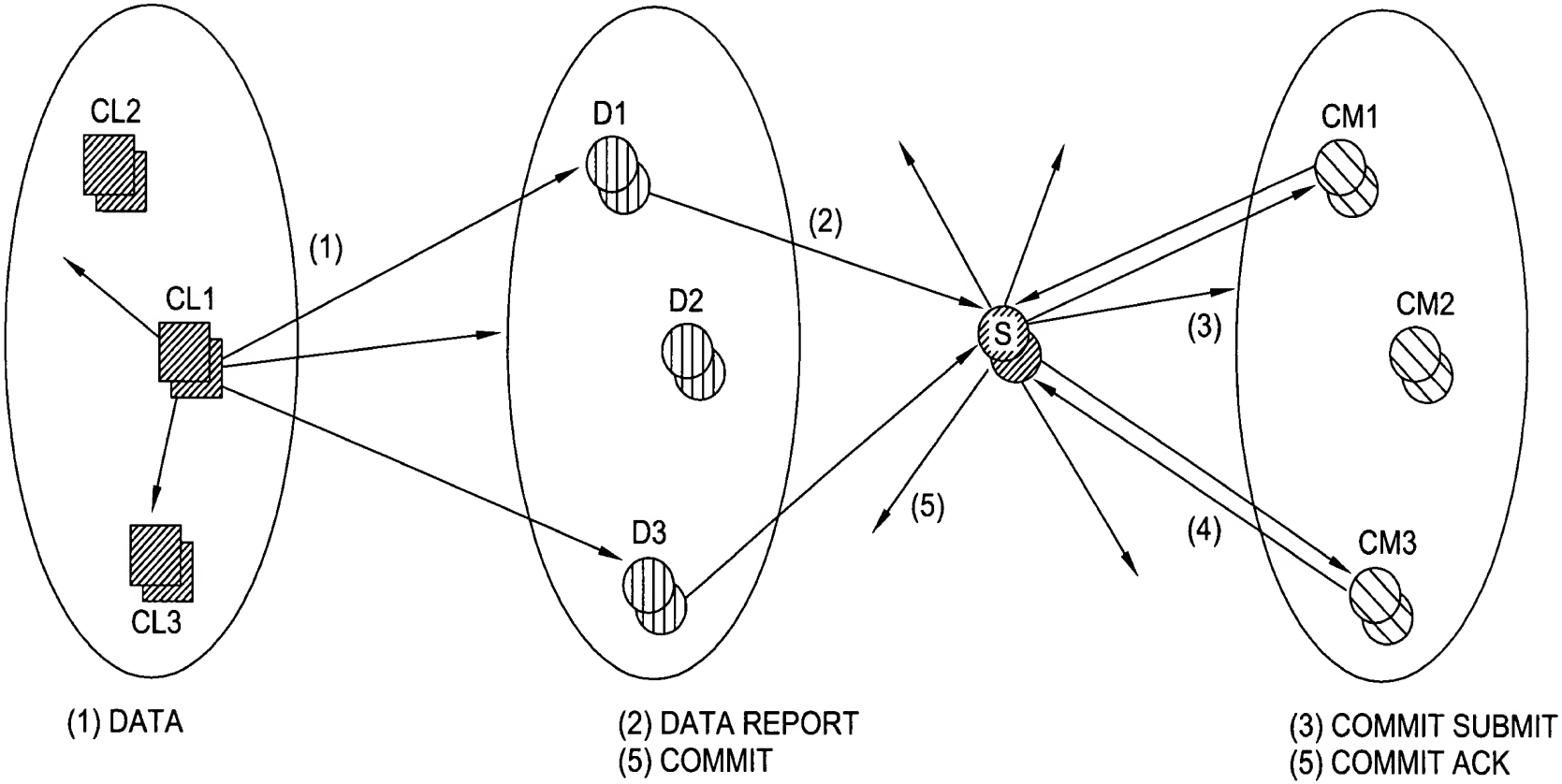


FIG. 1B

ASYNCHRONOUS COMMUNICATION
AND TOTAL ORDERING?

- DELIVER PKTS IN ORDER OF COMMIT NUMBER (CONTINUOUS!)
- IF A PKT IS MISSING, GET ITS PKT ID FROM COMMIT SERVERS, THEN GET THE PKT FROM DATA SERVERS.
- GUARANTEED ATOMICITY AND TOTAL ORDERING! NO NEED TO GET RESPONSE FROM OTHER CLIENTS.

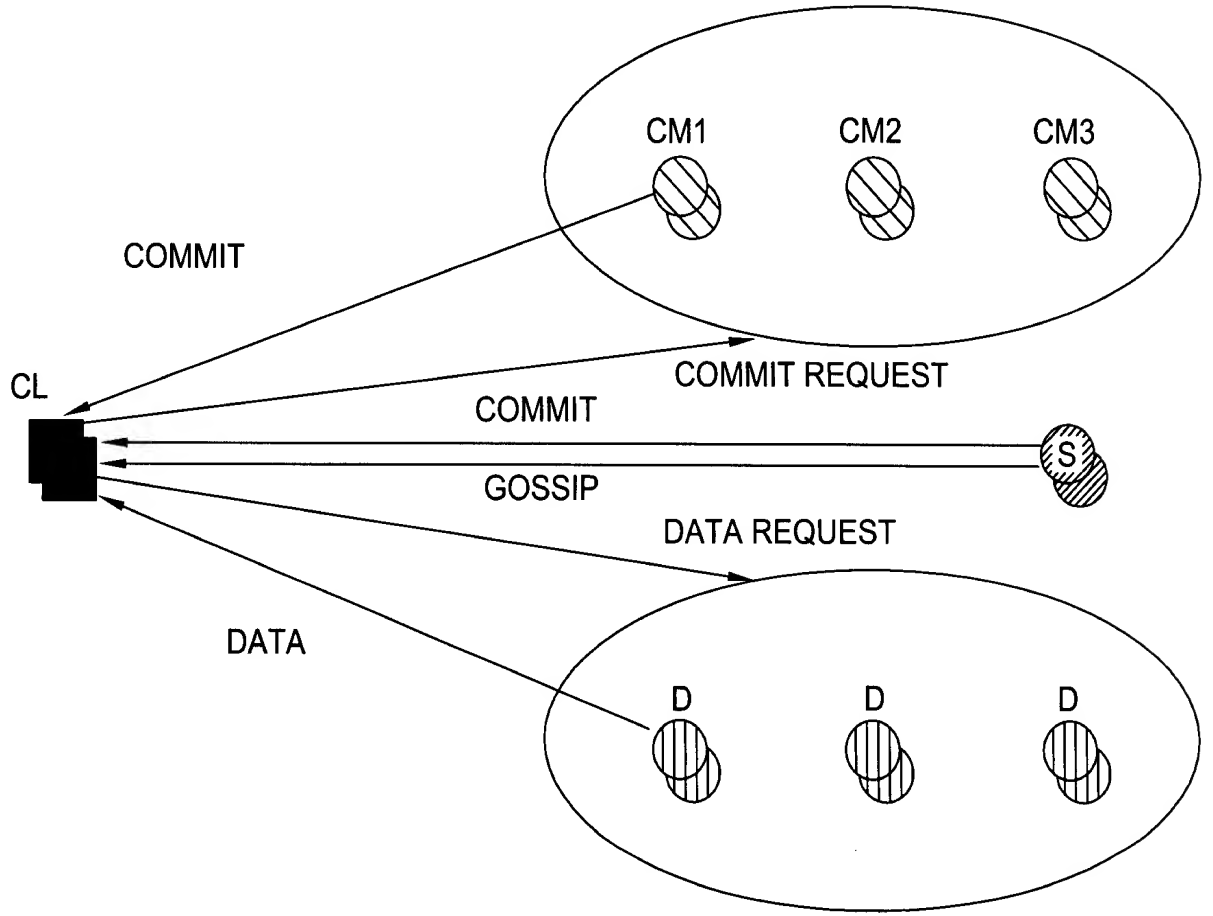


FIG. 2